Brownfields
Success Story

From Cement Mill to Calamityville®
Fairborn, Ohio

For almost 90 years, the 54-acre site at 506 East Xenia Drive in Fairborn, Ohio, produced cement, an ingredient critical to building infrastructure in the region. Today, the property has been reborn as a training venue where emergency first responders build their skills.

The old cement manufacturing plant now is home to the National Center for Medical Readiness and Calamityville®, an education, training, product testing and research facility for medical and non-medical civilian and military personnel. Operated by Wright State University, the facility features training zones with real-world props to recreate disaster scenarios from plane crashes and floods to hostage situations and mass casualty events.

But going from manufacturing plant to training and research facility was no small feat, in part due to the presence of environmental contamination at the site. Helmed by Fairborn City Manager Deborah McDonnell, the job of aligning the stakeholders, navigating the legal hurdles, cleaning up the site and transitioning the property to its new owner took nearly 7 years. But the effort breathed new life into an abandoned industrial site near the heart of downtown.

The Opportunity

Built in 1924, the cement plant flourished throughout much of the 20th century, taking advantage of the large local source of limestone and nearby rail infrastructure for transporting product. At its peak, the plant churned out 700,000 tons of portland and masonry cements each year. By the late 1990s, however, the main plant had moved out of town, leaving behind an office complex, various processing and maintenance buildings, and eight storage silos that sat idle. City officials were eager to find a new use for the site.

Just weeks after taking the job as city manager, McDonnell, along with Fire Chief Mike Riley, met with two Wright State University doctors who identified a need to train for disaster response in a lifelike setting. Both had served at the front lines providing emergency medical services after the 9/11 attacks, Hurricane Katrina and the 2010 earthquake in Haiti. These

Police are conducting a hostage rescue and extraction exercise on a school bus at the Calamityville® training facility.

EPA Grant Recipient:
City of Fairborn

Grant Type:
EPA Brownfield Cleanup Grant

Former Use:
Cement manufacturing plant

Current Use:
National Center for Medical Readiness at Wright State University

View of the old cement manufacturing plant in 1926.

EPA
United States
Environmental Protection
Agency

Crews are demolishing an old warehouse on the property.

> **“One of the unique features of the site is the ability to research and test new technologies, clothing and equipment used at disaster scenes to improve safety for responders and enhance medical treatments without having to rely on trial and error during a real disaster.”**
>
> *Deborah McDonnell*
> *City Manager*
> *City of Fairborn, Ohio*

A backhoe is removing asbestos-containing materials from the site.

experiences helped confirm for them the need for specialized training for personnel providing medical services at the scene of a major disaster and for bridging communication gaps between military and civilian responders.

First responders need to make decisions on the fly. “When they arrive at the scene of an incident,” McDonnell says, “they have to assess the situation and determine what care to provide in the field and who goes to the hospital. The hospital itself can become a disaster area when emergency room doctors, nurses and staff are not trained to accommodate large numbers of patients all at once.”

The proximity to Wright-Patterson Air Force Base, Wright State University and hospitals in the Dayton region made the old cement plant an ideal location for a medical training facility. These stakeholders could help transform emergency medical training to better prepare first responders for disasters and provide an opportunity for civilian and military responders to work cooperatively on-scene.

The Challenges

After securing support from local firefighters, McDonnell’s team developed a business plan and pitched it to the university. Officials with Wright State University embraced the idea and the opportunity it offered for creating a national response center, though the contamination at the site was a concern. Environmental assessments had identified asbestos, metals, volatile organic compounds including trichloroethylene and underground storage tanks on the property. The city’s efforts to secure a No Further Action letter, however, helped provide assurances that once the site was remediated, the university would not have to assume liability for any preexisting contamination.

Cemex Inc., the cement plant’s most recent owner, agreed to donate the property to the city for research and development. By donating the property, the company received a tax write-off, and the city was able to save some of the structures and reuse them—and put the property back into productive use. To access brownfield funding from the state, the city agreed to oversee the cleanup and then donate the property to the university.

“Everyone had to agree at the same time,” McDonnell says. “That was a big challenge. The lesson here is never give up regardless of setbacks.”

The Cleanup

Funding for the site remediation came from a $200,000 Brownfield Cleanup Grant from the U.S. Environmental Protection Agency (EPA), $1 million from Wright State University and $2.8 million from the Clean Ohio Fund.

The cleanup process took about 2 years to complete. Some of the old buildings were demolished. Asbestos was removed from inside and

outside the buildings that would remain, including some underground tunnels. Workers remediated trichloroethylene from the soil in an area where train cars used to be cleaned. Remnants of the old manufacturing plant were removed from the site, as were a few abandoned underground fuel tanks. Workers also cleaned up some oil in the old mechanic's garage. Although the groundwater onsite is not potable, it was repurposed for use in an energy-saving geothermal system for heating and cooling.

The Rebirth

Today, the property is the home office for the National Center for Medical Readiness, along with the tactical training facility known as Calamityville®. It is the first-ever research and training facility focused on the medicine of emergency disaster response.

What remains of the old cement plant is a massive, 9-story, 300-foot-long industrial building, which now features a crashed airplane training piece embedded in its side. The old storage silos will become deep-water diving tanks. Full-size school buses, military troop transports and other equipment facilitate reenacting emergencies, such as an armed hijacking or rescuing survivors in an overturned vehicle. The acres of open space are ideal for staging large-scale vehicle pileups, and state-of-the-art classrooms and labs offer venues for pre- and post-scenario discussions. The university even secured a piece of steel from the World Trade Center for an onsite 9/11 memorial.

"The vision is to prepare fire, police and health care professionals for their 'worst day,'" McDonnell says. "The facility is open to everyone and provides an opportunity to train in a safe environment that looks just like a disaster they may face on any given day." Already, the center has training agreements with the state and local police and the nearby Air Force base.

The Benefits

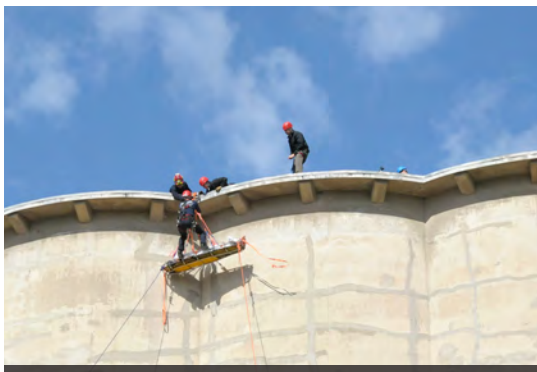
The project is poised to deliver a variety of benefits for the region. Due to the property's location on a state highway and close to downtown, McDonnell expects the site to become a viable economic driver. Already, 16 permanent jobs have been created and more are expected as the university brings in additional staff to do the training. "There is huge economic potential now that the facility is up and running," she says. "People will come from all over the country for training."

Plans are underway for multiple hotels and restaurants to be built in the area to support the training facility. The city also plans to increase office space for research and development activities and is reaching out to local businesses for ways to better serve training participants when they come to town. Plus, the city is developing a bikeway connector that goes by the site.

"The keys to success are finding an end user for the land and having a vision to help market the site you're going to clean up," McDonnell says. "And allow for flexibility in the business plan for when unexpected issues arise."

Military and civilian emergency responders conduct joint exercises at the National Center for Medical Readiness.

A World Trade Center memorial was erected in front of the center's offices.



Fire and emergency medical services staff are participating in high-altitude rescue training on the repurposed storage silos.

For more information:
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